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***Echinodorus densinervis* spec. nova (Alismataceae) from South America**

By

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Summary

SOMOGYI J. 2011. *Echinodorus densinervis* spec. nova (*Alismataceae*) from South America. – *Phyton* (Horn, Austria) 51 (1): 149–152.

Echinodorus densinervis SOMOGYI is formally described as a new species. This species from Brazil was hitherto known under the illegitimate name *E. martii*, the type of which belongs to a different species. One of the characteristics is the dense veining of the leaf blade.

Zusammenfassung

SOMOGYI J. 2011. *Echinodorus densinervis* spec. nova (*Alismataceae*) from South America. [*Echinodorus densinervis* spec. nova (*Alismataceae*) aus Südamerika]. – *Phyton* (Horn, Austria) 51 (1): 149–152.

Echinodorus densinervis SOMOGYI wird formal als neue Art beschrieben. Diese Art aus Brasilien war bisher unter dem illegitimen Namen *E. martii* bekannt. Eines der wesentlichen Merkmale ist die dichte Nervatur der Blattspreiten.

Some taxonomic and nomenclatural problems of *Echinodorus major* (MICHELI) RATAJ (basionym: *Echinodorus martii* var. *major* MICHELI) and “*Echinodorus martii* MICHELI” were solved by SOMOGYI 2006. However, the fact that the name *E. martii* is an illegitimate name was overlooked (see also LEHTONEN 2008). HAYNES & HOLM-NIELSEN 1994 – also erroneously – accepted this name and designated the “lectotype” (BR 841048) and the

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“isolecotype” (M 0088673) of the name “*E. martii*”. These specimens represent a separate species without any valid name. Therefore, this species has to be supplied with a new and correct name.

MICHELI (in A. & C. DE CANDOLLE, Monogr. Phan. 3: 49–50, 1881) described a new species *E. martii* with the variety *E. martii* var. [“β”] *major*. However, in the protologue of the name *E. martii*, he gives the earlier name *Alisma intermedium* SCHULT. f. [basionym of the name *Echinodorus intermedium* (SCHULT. f.) GRISEB.] as a synonym, with reference to its original publication [SCHULT. f. in J. A. & J. H. SCHULTES, Syst. Veg. 7(2): 1609, 1830] and also with reference to KUNTH (Enum. Pl. 3: 153, 1841) and SEUBERT [in MARTIUS, Fl. Bras. Vol. 3(1/ Fasc. 8): 106, Tab. 14, 1847]. The name *E. martii* is an illegitimate name and should be rejected (Art. 52.1-2 of the Code, McNEILL & al. 2006); this name is typified (Art. 7.5 of the Code) by the type of the earlier name *A. intermedium* [lectotype M 0086252, the plant on the left (with No. 93); designated by SOMOGYI 2006]. The name *A. intermedium* (and *E. intermedium*) was synonymised by HAYNES & HOLM-NIELSEN 1994 with the name *Echinodorus subalatus* (SCHULT. f.) GRISEB. (basionym: *Alisma subalatum* SCHULT. f.). The name *A. subalatum* (SCHULT. f. l. c., p. 1609–1610) was published within the same publication as the name *A. intermedium*. KUNTH (l. c.) cited a part of the protologue of the name *A. intermedium*. SEUBERT (l. c.) published a morphological description and a detailed picture of “*A. intermedium*”, which belongs to that taxon, which was later described by MICHELI (l. c., p. 49–50) as “*E. martii* var. *martii*”. The correct authorship of the names *A. intermedium* and *A. subalatum* is SCHULT. f. and not MART. as hitherto ascribed to these names in the literature (Art. 46 of the Code); however, the combinations into the genus *Echinodorus* RICH. & ENGELM. ex A. GRAY are valid (Art. 33.5 of the Code).

In the protologue of the name *E. martii*, MICHELI (l. c., p. 49) also wrote: “Exclus. *Echin. intermedium* GRISEB. Cat. pl. Cub.” GRISEBACH (Cat. Pl. Cub. 218, 1866) transferred *A. intermedium* to the genus *Echinodorus*, but he had in mind a different taxon (later described as *E. grisebachii* SMALL). This is the reason, why MICHELI (l. c., p. 49) excluded *Echinodorus intermedium*. In the same work MICHELI (l. c., p. 54) wrote about *E. intermedium*. It is clear from the text that he had in mind (in accordance with GRISEBACH) the species, which was later described as *E. grisebachii*; therefore he wrote: “Exclus. *Al. intermedium* MART. ut syn.”

The taxon described by MICHELI (l. c., p. 49–50) as “*E. martii* var. *martii*” represents a separate species. MICHELI (l. c., p. 49) made just a nomenclatural mistake when he included the name *A. intermedium* as a synonym; the morphological description in the protologue of the name *E. martii* shows clearly that MICHELI had in mind the new species (“*E. martii* var. *martii*”) and not *A. intermedium* (today correctly *E. subalatus*).

MICHELI (l. c., p. 50) cited in the protologue of the name *E. martii* herbarium collections from POHL, MARTIUS and VAUTHIER: "In Brasilia. Rio Reason de Manuel Alves (POHL n. 1263 in herb. Vindob. et Martius), ad flumen Jequetinhonha (MARTIUS ex SEUB. Fl. Brasil.), loco non indicato (VAUTHIER in herb. Mus. Par.)". The specimens from POHL represent "*E. martii* var. *martii*" (M 0088673, BR 841048), the collection from VAUTHIER is unknown (HAYNES & HOLM-NIELSEN 1994) and the MARTIUS specimen is probably identically with M 0086252; this specimen belongs to *E. subalatus*. SEUBERT (l. c.) cited the same herbarium collections (except VAUTHIER) which was later cited by MICHELI (l. c., p. 50) in the protologue of the name *E. martii*: "Crescit in arenosis ad fluvium Jequetinhonha: MART.; ad Rio Riachão de Manuel Alves: POHL". The locality of POHL's collection is unclear. On the labels of both of the known POHL's specimens (both s. n.), the locality is given only as "Brasilia". These specimens were originally deposited in Vienna's museum (W), from where they were transferred (according to the labels) in 1839 (Herb. Zuccarinii → Herb. Regium Monacense – Herb. Univ. Ludov. Maximil. = now M) and 1859 (Herb. Martii → BR).

The name *E. martii* var. *major* was elevated by RATAJ 1967 to species rank as *E. major*. *Echinodorus major* is accepted as a separate species (SOMOGYI 2006).

Echinodorus densinervis SOMOGYI, spec. nova

Diagnosis: Folia 10–30 cm longa. Petiolus lamina brevior vel vix aequans. Lamina foliorum coriacea, oblanceolata, 3–5 nervata, basi angustata vel truncata, apice acuto vel obtuse acuto. Nervatio densa, subtus prominens. Par interius nervorum primariorum in tertia vel quarta parte infima laminae a nervo medio divergens, par secundum nervorum primariorum plerumque in basi laminae a nervo medio divergens. Inflorescentia erecta, folia superans, simplex, in verticillis proliferans. Flores breviter pedicellati, staminibus 9. Achenia in latere glandulis sessilibus numerosis ornata.

Holotypus: Brasilia, POHL s.n., M 0088673. Isotypus: BR 841048.

Etymology: named after the characteristic, very dense veining of the blades, prominent beneath.

Synonymy:

– *Alisma intermedium* auct. non SCHULT. f. ["MART."; Art. 46 of the Code]: SEUBERT in MART. Fl. Bras. Vol. 3(1/ Fasc. 8): 106, Tab. 14, 1847.

– *Echinodorus intermedius* auct. non (SCHULT. f.) GRISEB. ["(MART.) GRISEB."; Art. 46 of the Code]: RATAJ e. g. in Mitt. Bot. Staatssamml. München 6: 615–616, 1967; Živa 21(6): 214–215, 1973; Stud. Českoslov. Akad. Věd Nr. 2: 29, 1975.

– *Echinodorus martii* auct. (p. p.) non MICHELI: HAYNES & HOLM-NIELSEN in Fl. Neotrop. Monogr. 64: 23–24, 1994 [excl. *Echinodorus martii* var. *major* MICHELI, *E. major* (MICHELI) RATAJ].

– *Echinodorus martii* auct. non MICHELI: MICHELI in A. & C. DC. Monogr. Phan. 3: 49–50, 1881 [excl. *Echinodorus martii* var. *major* MICHELI]; BUCHENAU in ENGL. Pflanzenr. IV. 15 (Heft 16): 30, 1903 [excl. *Echinodorus martii* var. *major* MICHELI]; SOMOGYI in Biologia (Bratislava) 61(4): 382, 2006.

Distribution: Brazil; this species is documented only by two herbarium specimens (holotype and isotype).

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